SF 200 R

Hook-up & Installation

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REV.B SEPT 86 I-2257

SF200R

The Model SF200R is designed to operate exclusively with the XL1218 and XL1219 Control Panels. Incorporating the SF200R will enable all on and off-premises telephones (assuming they are touchtone) to be used as keypads. The SF200R can be installed on sites which have rotary or touchtone phones. However, the rotary phones CANNOT access the system. The rotary phones can only be used to receive and make standard phone calls. XL1218R and XL1219R keypads MAY be used in conjunction with the SF200R if desired, or the SF200R can be used by itself. If the SF200R is used as a standalone, (with no keypads on site) remote red led terminals have been provided to indicate arm status. To access the SF200R, specific keys must be depressed in specific order via the telephone pad. The SF200R will respond clearly with English language messages concerning the system's status. The SF200R English language messages MUST be programmed into a FBI Model F102 prom chip, as per the programming section of this manual. The SF200R can also be programmed to allow off-premises access via touchtone telephones. Lastly, there are 3 auxiliary relays which contain Form C Dry Contacts, that can be used to activate on-premises devices via the SF200R System. This installation instruction will explain terminal connections of the SF200R to the XL1218 and XL1219 Control Panels first, then proceed with the prom programming.

THE ACTUAL SF200R OPERATION WILL BE EXPLAINED IN THE END USER MANUAL

HOOKUP/WIRING

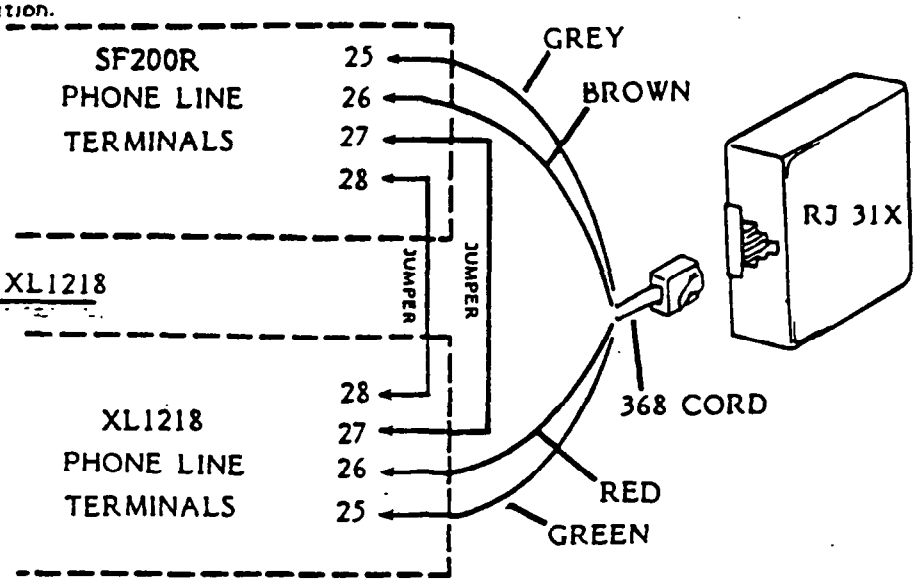
SF200R Terminals	1218 Terminals	1219 Terminals	Description
1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	Keypad Data Terminals. The SF200R reads loop data and instructs the Control Panel via these terminals
6	*	8	SF200R detects fire trouble on 1219 here
7	*	9	SF200R detects low bat on 1219 here
8	32	37	SF200R detects AC loss here
9	*	27	SF200R detects fire alarm on 1219 here
10	23	29	SF200R detects burglary alarm here
11 12 13	Common Normally closed Normally open		* Form C dry contacts on relay Number 3. Toggled by #3 at telephone
14 15 16	Common Normally closed Normally open		* Form C dry contacts on relay number 2. Toggled by #2 at telephone
17 18 19	Common Normally closed Normally open		* Form C dry contacts on relay Number 1. Toggled by #1 at telephone
20(-) 21(-)	A remote red led may be wired to these terminals to display arm status of the system.		
22	Terminal 22 is not used at this time		
23(+) 24(-)	A remote 8Ω 10 watt speaker may be wired here to listen to SF200R English Language messages accessed by phone.		
25(grey) 26(brown)	The grey & brown wires from the 368 cord which plugs into the RJ31X must be wired to these terminals. These wires contain the premises phones. (see diagram page 2)		
27 28	27 28	33 34	SF200R phone line connections to the control panels. See diagram page 2
29(+) 30(-)	20 21	25 26	DC from control panels to power SF200R. The SF200R draws approximately 70 ma in standby and 170 ma while active.

* = These terminals do not have to be connected when the SF200R is wired to XL1218.

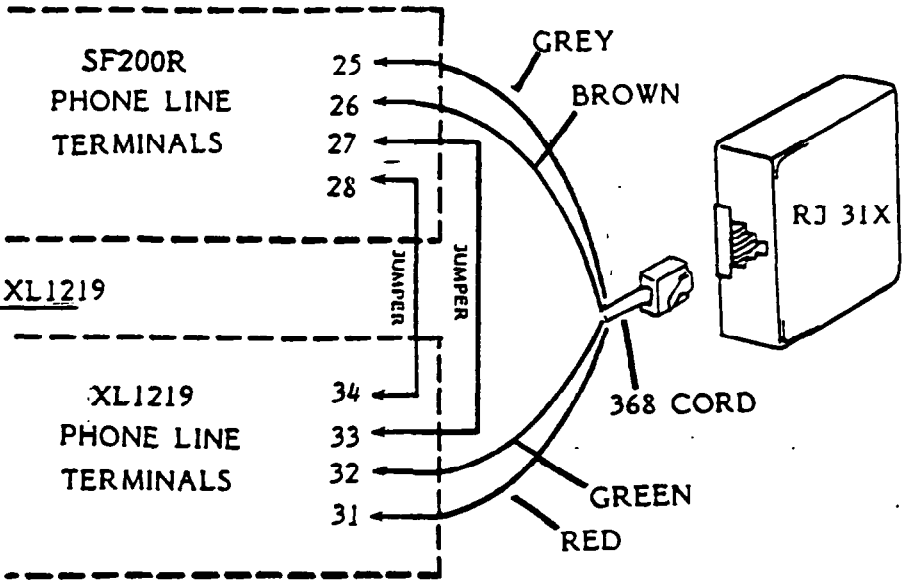
* CONTACTS RATED AT 28VDC, 3AMP.

NOTE: When the Convenience Switch on the SF200R box is depressed, the home phones will be connected directly to the outside lines, which enables the customer to prevent access to this system by on premises telephones. However, external access to this system can still be accomplished. Furthermore, the Control Panel will seize the home phones if a violation occurs. This switch should normally be in the OUT position.

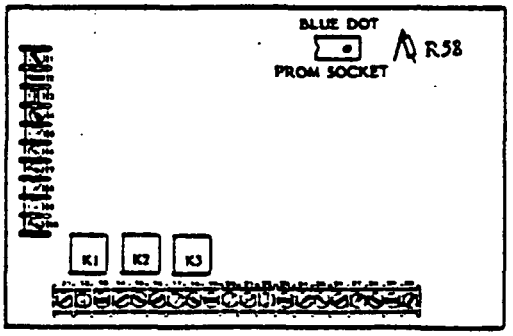
PHONE LINE HOOKUP SF200R TO XL1218



PHONE LINE HOOKUP SF200R TO XL1219



SF200R P.C. Board.



F.C.C. Registration No. AE398E-69554-AL-E for FIRE BURGLARY INSTRUMENTS MODEL SF200R

NOTE: Whenever the SF200R is disarmed, it will automatically deliver a status message. If status is not reported on disarm, depress [*] [*] twice. If the message "The Central was not called. Press Reset" is generated, depress [#] [0] to reset. Depress [*] [*] AGAIN to OBTAIN Final System Status. At this point any other system functions desired may be performed.

SF200R PROM PROGRAM

A Prom chip model F102 (DM74S387N, or 63S140N) must be programmed with an FBI 110 or 110C programmer for proper operation of the SF200R. Two quadrants of the Prom must be programmed. Either quadrants one and two or quadrants three and four may be used. The condition of the R58 resistor jumper in this system will dictate which two quadrants the SF200R will read. The chart below depicts R58 jumper setting for the desired quadrants used.

R58 Jumper	Quadrants
Connected	1 & 2
Cut	3 & 4

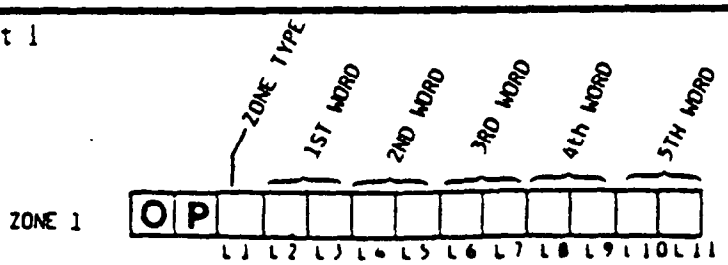
The main body of programming that is required for the SF200R is the ENGLISH LANGUAGE words that will be reported (said) when any of the zones of the Control Panel are read by the SF200R. In other words, the zones of the Control Panel must be Named.

Example: Zone 1 = Front door
Zone 2 = Kitchen
Zone 3 = Basement

(THIS INSTRUCTION BOOKLET IS DESIGNED TO ACCOMPLISH WRITING OUT THE SF200R PROGRAM SHEET WHICH IS LOCATED ON PAGE 12)

STEP A

Quadrant 1



The first location of the OP Field, Quad 1, marked L1 must contain a digit from the chart below which represents the TYPE of zone that zone 1 has been programmed in the XL1218 or XL1219 Control Panel.
(example: 24 HR Trouble Zone, 24 HR Alarm Zone, Controlled Burglary Zone)
Select the appropriate digit from chart below:

CHART A

Digit	Zone Type
0	24 Hr Alarm
1	24 Hr Trouble
3	Controlled Delay, Instant, or Interior

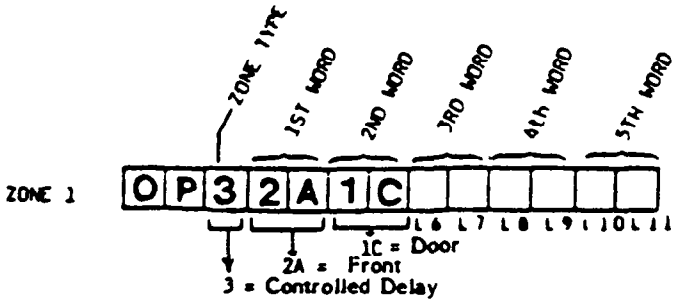
The second through eleventh location marked L2-L11 of this field represent the 5 total words that can be programmed to NAME zone 1. Locations L2 and L3 represent the first word, L4 and L5 the second word, etc. Each word desired has a 2 digit Hexadecimal number that corresponds to that word. The two digit numbers and corresponding words can be found in the PROGRAMMABLE LIBRARY, page 10. Write in the appropriate two digit numbers that represent the words desired for zone 1 in this OP field. If zone 1 requires less than five words, leave the corresponding locations for the unused words blank.

NOTE: If zones are programmed as 24 HR. alarm zones, the SF200R will not report the zone words, therefore locations L2-L11 should be programmed [F].

cont'd. pg. 4

STEP A cont'd.

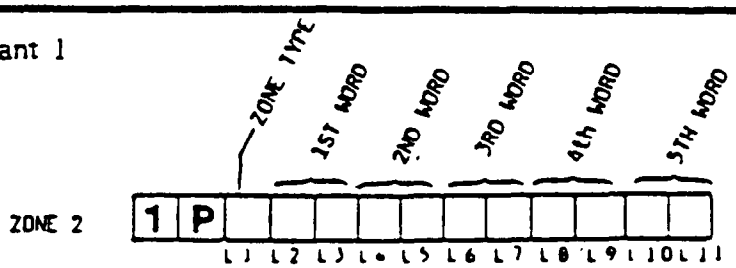
The following is an example of how the OP field should be programmed if zone 1 is a controlled delay, front door.



Since zone 1 is a burglary zone, there are many conditions it could actually be in during many instances of daily operation. (example: Alarm, Bypass, Trouble while the system is disarmed, etc.) When status is requested from the SF200R the words that were programmed here into the OP field will PRECEDE the PHRASES that apply from the DEDICATED LIBRARY of Terms for the condition of zone 1. (example: Zone 1 is bypassed; then status is requested. The SF200R will say "FRONT DOOR IS BYPASSED". "FRONT DOOR" is from this OP field, "IS BYPASSED" comes from the Dedicated Library.)
Zone 1 has been successfully programmed.

STEP B

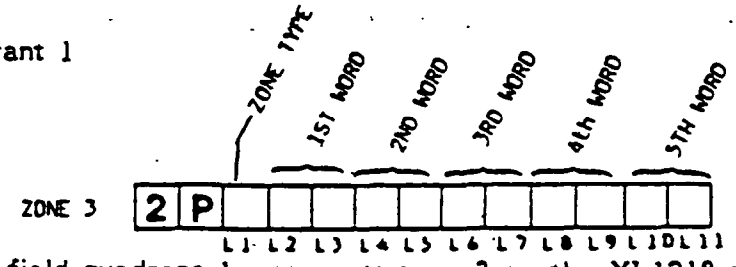
Quadrant 1



The 1P field of Quadrant 1 represents zone 2 on the XL1218 and XL1219. The same procedure must be followed here, as Step A. L1 location represents the zone type. Select an appropriate digit from Chart A in Step A. Location L2-L11 represent the 5 total words to Name zone 2. Select the 2 digit numbers that CORRESPOND TO the words desired from the PROGRAMMABLE LIBRARY.

STEP C

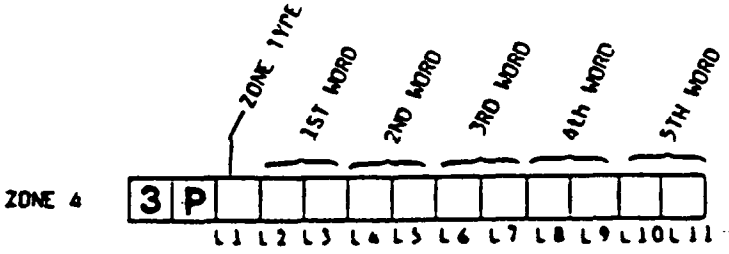
Quadrant 1



The 2P field quadrant 1 represents zone 3 on the XL1218 and XL1219. Follow the same procedure as Step A.

STEP D

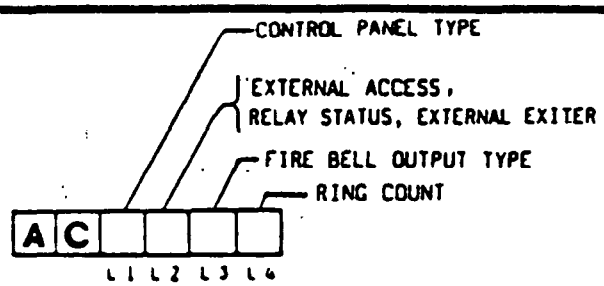
Quadrant 1



The 3P field quadrant 1 represents zone 4 of the XL1218 and XL1219. Follow the same procedure as Step A.

STEP E

Quadrant 1



THE FIRST LOCATION of this AC field marked L1 informs the SF200R what Control Panel is being used. Select an appropriate digit from the following chart for this L1 location.

Digit	Control Panel Type
0	XL1218
2	XL1219

THE SECOND LOCATION of this AC field marked L2 is used to determine the following three options:

Option One - External Access: If External Access is programmed, system functions can be accomplished from off-premises touch-tone telephones after call in.

Option Two - Automatic Relay Status: If this option is programmed, whenever SYSTEM STATUS is requested from the SF200R, it will include the status of all auxiliary relays. If "Automatic Relay Status" is not selected, relay status must be initiated manually by depressing [#] then [8].

Option Three - External Exiter: This option has been included in the SF200R and should be used only if the main control instrument (1218 or 1219) has been programmed to include at least one controlled INTERIOR zone. The purpose of this option is to enable the end user to call from an off-premise telephone, and arm his system without excluding the interior zone.
When External Exiter is programmed and the system is armed from an OFF-PREMISES TELEPHONE, auxiliary relay 3 will automatically activate momentarily. Relay 3 closed circuit contacts (SF200R terminals 11 and 12) MUST be wired in series with the CONTROL PANEL DELAY LOOP.
The momentary activation of relay 3, after arming, will simulate exit through the delay zone causing the control panel to include the interior zone. Relay 3 will not activate momentarily when the system is armed from on-premises telephones.
Lastly, when this option is selected, relay 3 can no longer be utilized as an auxiliary relay circuit.

NOTE: If this option is not selected, relay three will operate the same as auxiliary relay 1 and 2. Select the digit from the following chart which corresponds to all options desired.

DIGIT	EXTERNAL ACCESS	AUTOMATIC RELAY STATUS	EXTERNAL EXITER
0	NO	YES	NO
3	YES	YES	NO
7	YES	YES	YES
8	NO	NO	NO
B	YES	NO	NO
F	YES	NO	YES

cont'd. pg.6

STEP E cont'd.

THE THIRD LOCATION of this AC field marked L3 informs the SF200R what type of Fire Bell output has been programmed in the XL1218 or XL1219 Control Panels. When the SF200R system is used in conjunction with the XL1218, the XL1218 PANEL MUST be programmed PULSING BURG BELL OUTPUT for the Fire zone. Therefore, this location L3 in the SF200R must be programmed with Digit [4] when used with the XL1218. The XL1219 can be programmed for EITHER PULSING BURGLARY BELL OUTPUT FOR THE FIRE ZONE OR STEADY FIRE HORN OUTPUT. Therefore, select a digit from the following chart which informs the SF200R what type of Fire output is being used on the respective Control Panels.

DIGIT	Control Panel Fire Output
4	Pulsing Burg Bell output for Fire
C	Steady Fire Horn output

Note: If the SF200R is used with the XL1218, this L3 location MUST be programmed Digit [4], AND the XL1218 MUST be programmed PULSING BURG BELL OUTPUT for the Fire zone in Quad 2, 3P field, L1 location on ITS Prom.

THE FOURTH LOCATION OF THIS AC FIELD marked L4 determines the number of rings required before the SF200R will pick up, when accessed from OFF-premises telephones.

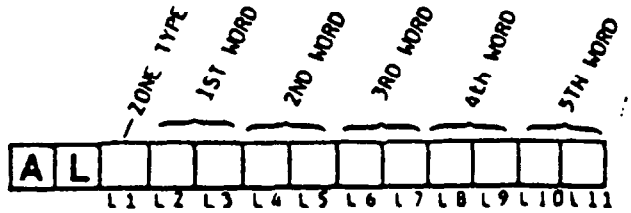
Select the digit desired from the following chart.

NOTE: If external access has not been selected, program this location "F".

DIGIT	NUMBER OF RINGS
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
A	10
B	11
C	12
D	13
E	14
F	No External Access

STEP F

Quadrant 1

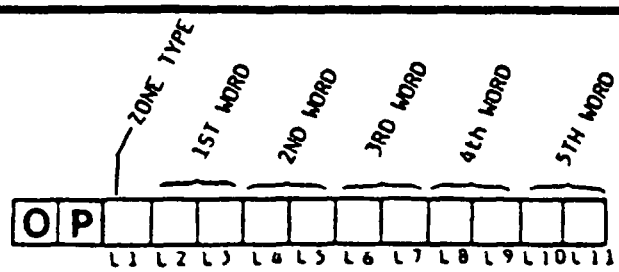


The AL field of quadrant 1 represents zone 5 on the XL1219. The same procedure must be followed here as Step A to Name zone 5 of the XL1219. L1 represents the zone type. Select an appropriate digit from Chart A in Step A. Locations L2-L11 represent the 5 total words to name zone 5. Select the 2 digit numbers that represent the words desired from the PROGRAMMABLE LIBRARY.

Note: If the SF200R system is being used in conjunction with the XL1218, this AL field MUST be left blank.

STEP G

Quadrant 2

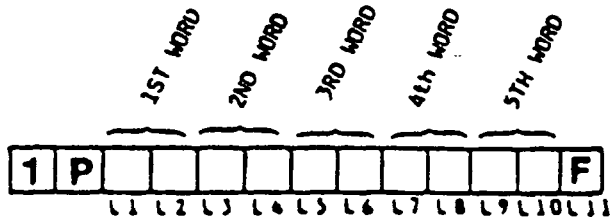


The OP field quadrant 2 represents zone 6 of the XL1219. Follow the same procedure as step F to Name zone 6.

Note: If the SF200R system is being used in conjunction with an XL1218, this field MUST be left blank.

STEP H

Quadrant 2

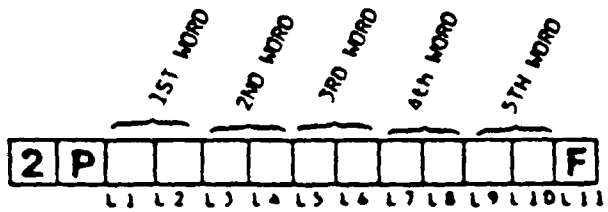


The 1P field quadrant 2 is used to Name auxiliary relay number 1. Locations L1-L10 represent the 5 total words. Select the 2 digit numbers that correspond to the words desired from the PROGRAMMABLE LIBRARY. The L11 location must be left blank.

Note: If relay 1 is not used, leave this field blank.

STEP I

Quadrant 2

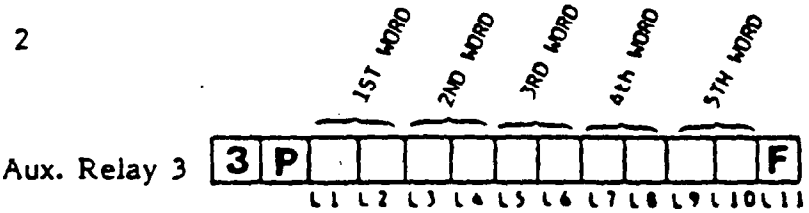


The 2P field quadrant 2 represents auxiliary relay 2. The same procedure must be followed as in Step H to Name relay 2.

Note: If relay 2 is not used, leave this field blank.

STEP J

Quadrant 2



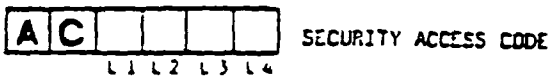
The 3P field quadrant 2 represents auxiliary relay 3. The same procedure must be followed as in Step H to Name relay 3.

Note: If relay 3 is not used, leave this field blank.

Note: If External Exiter has been selected in Quad 1, AC Field, L2 Location, then this 3P Field, all locations, MUST be programmed "F".

STEP K

QUADRANT 2



This AC Field Quadrant 2 can be used to program 1 through 4 digits (numbers 1-9) Security access code, beginning in L1 and ending in L4. This code must be utilized when the SF200R is accessed from OFF-Premises telephones, before any system functions can be accomplished. If all locations in this field are programmed "F", then system functions can be accomplished from OFF-Premises phones without entering this security access code. However, all system functions that require the main control panel code still apply.

Note: If (0) is desired in this code, program letter "A" instead.

NOTE: This field only applies if external access has been programmed. If external access has not been selected, program L1 - L4 "F".

Note: If security access code is programmed, the customer must wait for the SF200R to pick up after the programmed number of rings, then depress [*] and his 1 through 4 digit security access code. Then proceed with desired functions as explained in the End User Manual. If the correct access code is not entered in 3 tries, the SF200R will terminate the phone call.

STEP L

The SF200R Program Sheet has been successfully written out at this point. All other fields not mentioned in quadrant 1 and 2 must be left blank also. (i.e. quad 1 AF, FF and Quad 2 FF, AL fields). Utilize the following information called Proper Prom Programming Procedure to actually program the data written out on the program sheet into the Prom chip.

Once the Prom chip has been successfully programmed, it must be inserted into the SF200R socket, BLUE DOT UP.

PROPER PROM PROGRAMMING PROCEDURE

STEP A — Power up 110 or 110C. The Prom MUST NOT be in the Programmer at this time. Insertion of the Prom will be the last step prior to depressing the Program Button.

STEP B — Select the desired Quadrant to program. The 110 and 110C will program one quadrant (or ¼ of the chip) at a time.

STEP C — Depress [ENTER] momentarily, then [0] while the programmer socket is empty. Depressing [ENTER and 0] loads the present contents of the socket into memory. In the case of an empty socket, memory is loaded with Blanks or [F's]. A Blank and an [F] are the same thing. The only time the [F] Button must actually be depressed is if one specific location in a Field must be jumped over to get to another location to enter a number. Trailing [F's] at the end of a field need not be depressed as long as their locations are Blank.

STEP D — Punch in desired information for OP field through AL field in this Quadrant. Movement from OP to the next field and so on, can be accomplished by depressing [ENTER] then [9]. At the bottom left corner of the programmer resides a chart which represents the field names, descriptions and most important, the field numbers. Jumps can be accomplished from one field to another by depressing [ENTER], then the respective field number desired. Example: To jump from OP field to AC field, depress [ENTER] then [7]. This variable jumping will become useful for duplicating master chips.

STEP E — After completing data entry into all desired fields, the Prom may be inserted into the programmer socket. The Blue Painted dot must be situated down. The Prom must be pushed all the way in. The programmer does not care what field you are in when you program. Depress the [Program] Button momentarily, [Finish] should be displaved.

STEP F — The present quadrant has been successfully programmed. To program additional quadrants, the Prom must be removed, select the desired quadrant and repeat steps C-F.

Summary:

[F]: The [F] Button does not display anything when depressed, however it jumps from one location to the next. The only time the [F] Button must actually be depressed is when a jump must be made over one location to get to another location where a number must be entered. Trailing F's need not be depressed as long as their locations are blank.

[Enter], then [0] with socket empty: Loads F's in selected quadrant.
[Enter], then [0] with Prom in socket: Loads memory with present data that resides in the quadrant selected.
[Enter] then [9]: Increments fields from OP to AL back to OP again.
[Enter] then field number: Jumps from one field to another as designated by respective field number.

PROGRAMMABLE LIBRARY

00 A
01 AC
02 AIR CONDITIONER
03 ALARM
04 ALL
05 AND
06 ARE
07 AREA
08 ATTIC

09 BACK
0A BASEMENT
0B BATH
0C BATTERY
0D BE
0E BEDROOM
0F BOILER
10 BURGLAR
11 BYPASSED

12 CALL
13 CENTRAL
14 CHECKED
15 CLOSET
16 COMPUTER

17 DDD
18 DELAYS
19 DEN
1A DETECTOR
1B DINING
1C DOOR
1D DOWN

1E EAST
1F EIGHT
20 ENTRANCE
21 EXIT

22 FACTORY
23 FAN
24 FIRE
25 FIVE
26 FLOOR
27 FLOW
28 FOUR
29 FREEZER
2A FRONT

2B GARAGE
2C GUEST

2D HALL
2E HAVE
2F HIGH

30 IMMEDIATELY
31 IN
32 INSTANT
33 INTERIOR
34 IS

35 KITCHEN

36 LAUNDRY
37 LEAVE
38 LEFT
39 LIGHTS
3A LIVING
3B LOW

3C MASTER
3D MEDICAL
3E MUST

3F NINE
40 NORTH
41 NOT

43 OFF
44 OFFICE
45 ON
46 ONE
47 OUT

48 PANIC
49 PERIMETER
4A POLICE
4B PRESS
4C PRESSURE
4D PROGRAM
4E PROTECTED

4F READY
50 RECEIVING
51 RELAY
52 RESET
53 RIGHT

55 ROOM

56 SAFE
57 SECURITY
58 SERVICE
59 SEVEN

5B SIDE
5C SIX
5D SKYLIGHT
5E SLIDING
5F SMOKE
60 SOUND
61 SOUTH
62 SSSSSS
63 STAIRS
64 STOCK
65 SYSTEM

66 TEMPERATURE
67 THE
68 THREE
69 TROUBLE
6A TWO

6B UP

6C VIOLATED

6D WALL
6E WAS
6F WATER
70 WERE
71 WEST
72 WINDOW

73 YOU

74 ZERO
75 ZONE

NOTE: DDD is to indicate past tense of a word.
SSSS is to pluralize a word.

DEDICATED LIBRARY

"IS IN ALARM"
"IS IN TROUBLE AND MUST BE CHECKED"
"IS NOT RESET. PRESS RESET"
"IS BYPASSED"
"THE SECURITY COMPUTER IS READY FOR PROGRAM"
"THE SECURITY COMPUTER PROGRAM IS OFF"
"THE SECURITY SYSTEM IS ON"
"THE SECURITY SYSTEM IS OFF"
"THE CENTRAL WAS NOT CALLED. PRESS RESET"
"ALL SYSTEM DELAYS ARE ON"
"ALL SYSTEM DELAYS ARE OFF"
"THE AC IS IN TROUBLE AND MUST BE CHECKED"
"THE BATTERY IS IN TROUBLE. CALL FOR SERVICE"
"THE FIRE ZONE IS IN TROUBLE. CALL FOR SERVICE"
"YOU HAVE PRESSED PANIC"
"THE FIRE SOUND IS ON"
"THE BURGLARY SOUND IS ON"
"IS ON"
"IS OFF"